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S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

GRYN 201 - CAI

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

09/720573

DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371

TRANSMITTAL LETTER TO THE UNITED STATES

INTERNATIONAL APPLICATION NO. PCT/FR99/01587

INTERNATIONAL FILING DATE

1 July 1999

PRIORITY DATE CLAIMED

03 July 1998

TITLE OF INVENTION

METHOD AND SYSTEM FOR PRODUCING WHEN A CALL IS RECEIVED ON A STANDARD PORTABLE TELEPHONE, A SOUND SIGNAL AS POWERFUL AS A DOMESTIC TELEPHONE SET RINGING SIGNAL

APPLICANT(S) FOR DO/EO/US

René TRAVÉRE et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

- 1. This is the FIRST submission of items concerning a filing under 35 U.S.C. 371.
- 2. This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.
- 3. This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(l).
- 4. 🗌 A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
- 5. A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. I is transmitted herewith (required only if not transmitted by the International Bureau.)
 - has been transmitted by the International Bureau.
 - c. [is not required, as the application was filed in the United States Receiving Office (RO/US).
- 6. A translation of the International Application into English (35 U.S.C. 371(c)(2)).
- 7. Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - are transmitted herewith (required only if not transmitted by the International Bureau).
 - have been transmitted by the International Bureau.
 - have not been made; however, the time limit for making such amendments has NOT expired.
 - have not been made and will not be made.
- 8. A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
- 9. An executed oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
- 10.

 A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

- 11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
- 12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
- 13. A FIRST preliminary amendment.
 - A SECOND or SUBSEQUENT preliminary amendment.
- 14. A substitute specification.
- 15.

 A change of power of attorney and/or address letter.
- 16. Other items or information:
 - 1. International Search Report
 - 2. PTO FORM 1449

EXPRESS MAIL NO. EL 759723263 US Mailed December 22, 2000

	BASIC NATION	NAL FEE (3/ CFR 1.492	(A)(1) - (5)):			
	Search Report has been prepared by the EPO or JPO \$860.00					
	International preliminary examination fee paid to USPTO (37 CFR 1.482)					

İ	No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) \$710.00					
I	Neither International preliminary examination fee (37 CFR 1.482) nor					
	international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$1000.00					
	International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) \$100.00					
	ENTER APPROPRIATE BASIC FEE AMOUNT =			\$860.00		
	Surcharge of \$130.00 for furnishing the oath or declaration later than \(\subseteq 20 \) \(\subseteq 30 \) months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
	CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
- J	Total claims	18 - 20 =	0	x \$18/9.00	\$0	
IJ.	Independent	2 - 3 =	0	x \$80/40.00	\$0	
	MULTIPLE DEPENDE	ENT CLAIM(S) (if applica		+ \$250.00	\$	
		ТО	TAL OF ABOVE CA	ALCULATIONS =	\$860.00	
	Reduction of ½ for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).			\$430.00		
	SUBTOTAL =			\$430.00		
Series dans dens les	Processing fee of \$130.00 for furnishing the English translation later than \(\subseteq 20 \subseteq 30 \) months from the earliest claimed priority date (37 CFR 1.492(f)).			\$0		
	TOTAL NATIONAL FEE =			\$430.00		
	Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property+			\$ 40.00		
	TOTAL FEES ENCLOSED =			\$470.00		
					Amount to be: refunded	\$
					charged	\$
	a. A check in the amount of \$430.00 (Filing Fee) and a check for \$40.00 (Assignment Recordation Fee) to cover the above fees is enclosed.					
l	b. Please charge my Deposit Account No. 50-0624 in the amount of \$540.00 to cover the above fees. A duplicate copy of this sheet is enclosed.					
	c. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 50-0624. Adupticate copy of this sheet is enclosed.					
	NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been nor (b)) must be filed and granted to restore the application to pending status.			met, a petition to rev	ive (37 CFR 1.137(a)	
-	SEND ALL CORRESPONDENCE TO: C. Andrew Im					(
	C. Andrew Im FULBRIGHT & JAWORSKI L.L.P.			Michael		
1	566 Fifth Avenue			SIGNATURE		
	New York, NY 1010: Customer No. 2497				C. Andrew Im	December 22, 2000
					40,657	
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GRYN 201 - CAI

CERTIFICATE OF EXPRESS MAIL				
"Express Mail" mailing label #EL 759723263 US				
Date of Deposit December 22, 2000				
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s)

René TRAVÉRE et al.

Serial Number

To be Assigned

Filing Date

December 22, 2000

Based on

International Appl.:

PCT/FR99/01587

International

Filing Date

July 1, 1999

For

METHOD AND SYSTEM FOR PRODUCING WHEN A

CALL IS RECEIVED ON A STANDARD PORTABLE TELEPHONE, A SOUND SIGNAL AS POWERFUL AS A

DOMESTIC TELEPHONE SET RINGING SIGNAL

Hon. Commissioner of Patents

December 22, 2000

and Trademarks

Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination please amend the application as follows:

IN THE SPECIFICATION

Please amend the specification as follows:

Page 1, before line 2, please insert -- BACKGROUND OF THE INVENTION --;

Page 4, before line 14, please insert -- SUMMARY AND OBJECTS OF THE PRESENT INVENTION --;

Page 8, after line 14, please insert the following

-- BRIEF DESCRIPTION OF THE DRAWINGS

The following detailed description, given by way of example, and not intended to limit the present invention solely thereto, will best be understood in conjunction with the accompanying drawing in which:

Fig. 1 is a block diagram of an embodiment of the sytem architecture of the present invention.--

Page 8, before line 16, please insert -- **DETAILED DESCRIPTION OF THE EMBODIMENTS** --.

Page 22, ABSTRACT, please replace with the following -- A process and a system for producing, when a standard portable mobile telephone is called, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument. The process includes the steps of autonomous detection by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal, triggering by means of said detection signal, the emission of an acoustic signal of power comparable to that of the ring of a domestic telephone instrument. Thus, the user of the standard

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mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.--

IN THE CLAIMS

Please CANCEL claims 1-14 and add the following new claims.

--15. (New) A process for producing a high power acoustic signal for use with a standard portable mobile telephone, comprising the steps of:

autonomously detecting a call from a calling station;

generating a detection signal when said call is detected; and

emitting said high power acoustic signal in response to said detection signal to alert user of said mobile telephone of said call comparable in power to that of a ring of a domestic telephone instrument, thereby alerting even said user remote

from said mobile telephone.--

- --16. (New) The process of claim 15, wherein the step of emitting includes the step of supplying power to an emitter to generate said high power acoustic signal through a domestic power source, such that the number of said high power acoustic signals generated for calls is not limited by the capacity of a power source.--
- --17. (New) The process of claim 16, wherein said domestic power source is a charger connected to a household electrical outlet.--
- --18. (New) The process of claim 16, wherein said domestic power source is a rechargeable battery attached to a charger connected to a household electrical outlet.--

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- --19. (New) The process of claim 15, wherein the step of autonomously detecting includes the step of detecting said call without modifying electronic circuits of said mobile telephone by detecting a disturbance of an electromagnetic environment of said mobile telephone.--
- --20. (New) The process of claim 15, wherein said mobile telephone being connected to a charger in a sleep mode; and wherein the step of autonomously detecting includes the step of detecting said call without modifying electronic circuits of said mobile telephone by detecting variations in charging current of said charger.--
- --21. (New) The process of claim 15, wherein said mobile telephone comprises a vibrator for generating vibrations to alert said user of said call; and wherein the step of autonomously detecting includes the step of detecting said call without modifying electronic circuits of said mobile telephone by detecting the vibrations generated by said vibrator.--
- --22. (New) The process of claim 15, wherein the step of autonomously detecting includes the step of detecting said call without modifying electronic circuits of said mobile telephone by using an independent electronic circuit to detect said call from said calling station. --
- --23. (New) The process of claim 15, wherein the step of autonomously detecting includes the step of detecting said call without modifying electronic circuits of said mobile telephone by detecting acoustic vibrations of a ring generated by said mobile telephone when said call is received.--

- --24. (New) Apparatus for producing a high power acoustic signal for use with a standard portable mobile telephone, comprising the steps of:
 - a detector for autonomously detecting a call from a calling station;
 - a signal generator for generating a detection signal when said call is detected by said detector; and

an emitter for emitting said high power acoustic signal in response to said detection signal to alert user of said mobile telephone of said call comparable in power to that of a ring of a domestic telephone instrument, thereby alerting even said user remote from said mobile telephone.--

- --25. (New) The apparatus of claim 24, further comprising a domestic power source for supplying power to said emitter, such that the number of said high power acoustic signals generated for calls is not limited by the capacity of a power source.--
- --26. (New) The apparatus of claim 25, wherein said domestic power source is a charger connected to a household electrical outlet.--
- --27. (New) The apparatus of claim 25, wherein said domestic power source is a rechargeable battery attached to a charger connected to a household electrical outlet.--
- --28. (New) The apparatus of claim 24, wherein said emitter comprises a disturbance analyzer for detecting electromagnetic fields surrounding said mobile telephone, thereby detecting said call without modifying electronic circuits of said mobile telephone.--

- --29. (New) The apparatus of claim 24, further comprising a charger connected to said mobile telephone in a sleep mode; and wherein said emitter comprises an analyzer for detecting variations in charging current of said charger, thereby detecting said call without modifying electronic circuits of said mobile telephone.--
- --30. (New) The apparatus of claim 24, wherein said mobile telephone comprises a vibrator for generating vibrations to alert said user of said call; and wherein said emitter comprises a receiver for detecting the vibrations generated by said vibrator, thereby detecting said call without modifying electronic circuits of said mobile telephone.--
- --31. (New) The apparatus of claim 24, wherein said detector comprises an electronic circuit that is independent of said mobile telephone.--
- --32. (New) The apparatus of claim 24, wherein said emitter comprises a receiver for detecting acoustic vibrations of a ring generated by said mobile telephone when said call is received, thereby detecting said call without modifying electronic circuits of said mobile telephone.--

REMARKS

Applicants have canceled claims 1-14 and added new claims 15-32.

Applicants request that the foregoing amendment be entered prior to examination.

An early and favorable response is earnestly solicited.

No fee is believed to be due, however, should a fee become due the Commissioner is hereby authorized to deduct any fee associated with this filing from Deposit Account No. 500624.

Respectfully submitted,

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A PROCESS AND SYSTEM FOR PRODUCING, WHEN CALLING A STANDARD PORTABLE MOBILE TELEPHONE, AN ACOUSTIC SIGNAL OF POWER COMPARABLE TO THAT OF THE RING OF A DOMESTIC TELEPHONE INSTRUMENT

The present invention concerns a process and a system for producing, when calling a standard portable mobile telephone, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument.

By "acoustic signal of power comparable to that of the ring of a domestic telephone instrument", is understood an acoustic signal which may be heard from most if not all of the rooms of domestic premises or of premises of the same size comprising several offices.

The inventors have noticed that mobile telephones community telephones which, by their construction, are designed to disturb their environment little as possible. Thus, their sound power, particularly that of the call ring is intentionally reduced such that in practice, only the carrier of the mobile telephone is in a position to hear the acoustic signal emitted. Indeed, the ring of portable telephones is by nature low in power, their compactness does not allow large-capacity electrical power sources to be fitted. The ring cannot be heard if the user is not close at hand, or if the sound environment congested. Additionally, it may be that in some parts of the premises, the network is not picked up, whereas in other places on the same premises, the network is present. The place where the portable telephone is to

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be put down depends on network reception quality. This place is not necessarily where the user wishes to be. Furthermore and above all, the development of the mobile phone culture is driving industrialists develop ever lighter, ever more compact, ever more distinctive, ever more confidential, in short ever more personal mobiles. The portable telephone is kept close to the individual. Its ring may therefore only be heard in a small range area around the place where that individual happens to be. Some mobiles with vibrators could even dispense with emitting a ring. Acknowledging this has not deterred the inventors from their plan. They have imagined that a portable mobile telephone might constitute a secondary telephone, if not the main telephone, in places where the mobile telephone subscriber is not bound by sound constraints in respect of the environment, for example, a second home. other words, the inventors have set themselves the problem of converting the portable mobile telephone into a fixed telephone whose call ring could be heard from all the rooms in the place where the mobile telephone subscriber happens to be.

Thus, insofar as this problem can be solved, it would no longer be necessary for the subscriber to carry the mobile telephone permanently on his/her person in places where he/she is staying for some time. Moreover, he/she would then be able to set down the mobile telephone in the area of the premises where the GSM reception is best.

The inventors are aware that there is already an installed base of mobile telephones and that it is

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rather unlikely that the manufacturers of mobile telephones will call in and modify equipment already sold.

It is accepted that manufacturers must comply with standards. Some time will be needed for new standards to be drawn up and for mobile telephones to be designed which are able to be used in two different ways:

- on the one hand, in a discreet way in places where the noise pollution they create might disturb the environment,
- on the other hand, in an habitual way like a fixed telephone, at the discretion of the user.

The manufacture of low cost, low weight, high energy batteries to power call rings with high acoustic power is a complex technological problem to solve.

The inventors have therefore ruled out technical solutions consisting in modifying the mobile telephone itself or some of its constituent parts.

The document: EP 0423 773 A (SIEMENS AG 20 OSTERREICH; SIEMENS AG (DE)) describes exactly the technical solution set aside by the inventors. This document describes a system combining:

- a mobile telephone (MT) in which is incorporated a mobile coupling device (MKE) and
- a base (AV) comprising a fixed coupling device (SKE) with the mobile coupling device (MKE).

The base contains an additional, relatively powerful ring. The coupling device (MKE) contains a multi-pole plug-in socket for data and speech transfers. Thus, it is clear that the mobile telephone

(MT) is designed and contains adapted parts so as to engage with the base (AV).

The implementation of a technical solution such as that described in the document cited would entail the modification of the mobile telephones already sold. It would also entail the adoption by the manufacturers of new standards and the manufacture of mobile telephones specifically adapted to engage with the bases containing the additional power rings.

The document cited does not relate to the problem posed and solved by the present invention. It does not describe a solution which can be adapted to a pre-existent mobile telephone base.

The process according to the invention makes it possible, when calling a standard portable mobile telephone from a calling station, to produce an acoustic signal of power comparable to that of the ring of a domestic telephone instrument.

The process according to the invention includes 20 the stages:

- of autonomous detection by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal, then
- of triggering, by means of said detection 25 signal, the emission of an acoustic signal of power comparable to that of the ring of a domestic telephone instrument.

Thus, the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.

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Preferably, the process according to the invention additionally includes the stage of emitting the acoustic signal by means of an emitter supplied, directly or indirectly, with power by a domestic source, particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the household electricity.

Thus, the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source.

Advantageously, according to a first embodiment variant, for the mobile telephone to detect autonomously the call from the calling station, a disturbance of the electromagnetic environment of the mobile telephone is detected.

Advantageously, according to a second embodiment variant, where in sleep mode the mobile telephone is combined with a charger, for the mobile telephone to detect autonomously the call from the calling station, the variations in charging current of said charger are detected.

Advantageously, according to a third embodiment variant, where the mobile telephone comprises a vibrator intended to signal calls to the user, for the mobile telephone to detect autonomously the call from the calling station, vibrations given out by said vibrator are detected. It would also be possible to detect acoustic vibrations created by the ring of the mobile telephone when the calling station calls.

Advantageously, according to a fourth embodiment variant, for the mobile telephone to detect

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autonomously the call from the calling station, the call emitted by the calling station is detected by means of an independent electronic circuit.

Thus, whatever the embodiment variant considered, it is not necessary to modify the electronic circuits of the standard mobile telephone.

The invention also concerns a device for producing, when calling a standard portable mobile telephone from a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument.

The device according to the invention includes:

- detection means for the mobile telephone to detect, directly or indirectly, the call from the calling station and,
 - detection signal production means.

The device according to the invention also includes means for triggering, by means of said detection signal, the emission by an acoustic emitter of an acoustic signal of power comparable to that of the ring of a domestic telephone instrument.

Thus, the user is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone. The device according to the invention allows the mobile to be separated from its user without the latter losing thereby the possibility of benefiting from its calls. More widely, it allows the mobile to recover the domestic or social user-friendliness which characterises the qualities of any fixed installation telephone. Moreover the device according to the invention makes it possible to hear

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the mobile in a large part of the premises, even if only some sectors of these premises are covered by the network.

Preferably, said acoustic emitter is supplied, directly or indirectly, with electric power by a domestic source, particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the household electricity.

Thus, the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source.

Advantageously, according to a first embodiment variant, the detection means for the mobile telephone to detect autonomously the call from the calling station comprise disturbance analysis means of the electromagnetic fields surrounding the mobile telephone.

Advantageously, according to a second embodiment variant, where the mobile telephone is combined in sleep mode with a charger, the detection means for the mobile telephone to detect autonomously the call from the calling station comprise analysis means of the charging current of said charger.

Advantageously, according to a third embodiment variant, where the mobile telephone comprises a vibrator intended to signal the calls to the user, the detection means for the mobile telephone to detect autonomously the call from the calling station include receivers sensitive to the vibrations given out by said vibrator. Analysis means could also be implemented combined with "voice" recognition means for detecting

and recognising the acoustic vibration created by the ring of the mobile telephone when the calling station calls.

Advantageously, according to a fourth embodiment variant, the detection means for the mobile telephone to detect autonomously the call from the calling station comprise an independent electronic circuit picking up the call signals emitted by the calling station.

Thus, whatever the embodiment variant considered, it is not necessary to modify the electronic circuits of the standard mobile telephone.

Some embodiment variants will now be described in more detail.

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I. The case of disturbance in the electromagnetic field.

When the portable mobile telephone receives a call from the calling station, its electromagnetic environment is disturbed by the electromagnetic wave received and/or by the fields created by the currents circulating in the electronic circuits of the mobile telephone detecting the electromagnetic wave received and responding back.

By detecting this disturbance in the electromagnetic environment created by the incoming call, it is possible to activate a powerful ring after analysing and amplifying the signals detected.

30 <u>II. The case where the mobile telephone is combined in sleep mode with a charger.</u>

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When the mobile is in sleep mode and being charged from the household electricity and when the mobile is called, at that exact moment there occurs a drop in electric current in the recharge circuit of the batteries of the mobile, and in a part of the components contained in the mobile itself.

. The device according to the invention makes it possible to pick up, thanks to a detector, this modification of the electric current, and to apply it to an amplifier generating acoustic waves conveying a powerful ring that may be modulated as required.

This device composed of a ring-generating amplifier detector may be placed in an appropriate location, chosen from among the following configurations:

- the device may be integrated into the charger itself which usually contains the transformer and the current rectifier.
- the device may be inserted into the load 20 circuitry of the batteries,
 - the device may be contained in a support unit of the mobile.
- the device may be separated from the mobile charger unit and connected by conductors to one of the
 aforementioned components.

III. The case where the portable mobile telephone comprises a vibrator.

In the event of the portable mobile telephone comprising a vibrator, the device according to the invention comprises an electronic vibration detector 1.

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This detector supplies a digital or analogue signal corresponding to the vibrations it detects.

The device additionally comprises data processing means 2 responsible for analysing the signal supplied by the vibration detector so as to determine if these vibrations come from the mobile and, if so, to generate a ring tone. The device may also be fitted with an external device (switches or links) allowing a ring tone to be selected.

The device also comprises an amplifier 3 connected to the data processing means. This amplifier is responsible for amplifying the ring tone generated by the data processing means. It may also be fitted with a potentiometer enabling the sound level of the tone to be adjusted.

A loudspeaker 4, connected to the amplifier, enables the ring to be played back.

A power supply 5 supplies the electrical power (voltage) necessary for each part of the system. This power may be supplied by a mains block, by cell batteries, or by rechargeable batteries. The power supply comprises an on/off button and an operation pilot indicator.

The device comes in the form of a flat casing on which the mobile rests.

A comparable device may be implemented to detect the acoustic vibration emitted by the ring of the mobile telephone, to analyse it and recognise by voice recognition technology the origin of this acoustic vibration. The device may then emit, as has been

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described above, a powerful ring intended for the user located some distance away.

IV. The case of an independent electronic circuit

The device may be physically separate, portable, and not connected to the mobile charger unit. In this case, the device is composed of a receiver part, which is light and compact, comparable to that of the mobile, and of a part generating a powerful ring. independent device, powered by rechargeable batteries, in connection with the emitter, just like the mobile, by electromagnetic waves. The device has been initialised during commissioning, exactly like mobile. When the mobile is called, whether or not it is in sleep mode, the receiver part of the device is acted upon and controls the ring generator which rings. This ring stops when the communication is taken on the mobile, or when the call stops, or when the mobile's voice message system is engaged.

The user may as required move some distance away from the mobile and be alerted to any call, without needing to carry the mobile around. In this way other persons may use it. If necessary, as many independent devices as desired can be used.

CLAIMS

A PROCESS AND SYSTEM FOR PRODUCING, WHEN CALLING A STANDARD PORTABLE MOBILE TELEPHONE, AN ACOUSTIC SIGNAL OF POWER COMPARABLE TO THAT OF THE RING OF A DOMESTIC TELEPHONE INSTRUMENT

- 1. A process for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument: said process including the stages:
- of autonomous detection (1) by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal,
- of triggering, by means of said detection signal, the emission of an acoustic signal (4) of power comparable to that of the ring of a domestic telephone instrument,
- (so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone).
 - 2. A process according to claim 1 characterised in that it includes additionally the stage
- of emitting the acoustic signal by means of an emitter supplied (5), directly or indirectly, with power by a domestic source, particularly by a charger connected to the household electricity and/or a

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rechargeable battery by a charger connected to the household electricity,

(so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source).

- 3. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- a disturbance of the electromagnetic environment

 10 of the mobile telephone is detected,

(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

- 4. A process according to any one of claims 1 or 2 such that in sleep mode the mobile telephone is combined with a charger, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the variations in charging current of said charger are detected,
- 20 (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
 - 5. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a vibrator intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
 - vibrations given out by said vibrator are detected (1),

(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

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- 6. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the call emitted by the calling station is detected by means of an independent electronic circuit.

 (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
- 7. A device for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument; said device including:
- detection means (1) for the mobile telephone to detect autonomously, directly or indirectly, the call from the calling station and detection signal production means,
- means for triggering (2, 3), by means of said detection signal, the emission by an acoustic emitter of an acoustic signal of power (4) comparable to that of the ring of a domestic telephone instrument,
- (so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone).
- 8. A device according to claim 7 characterised in that said acoustic emitter is supplied, directly or indirectly, with power by a domestic source (5), particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the household electricity,

(so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source).

- 9. A device according to any one of claims 7 or 8 characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise disturbance analysis means of the electromagnetic fields surrounding the mobile telephone,
- 10 (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
 - 8; the mobile telephone being combined in sleep mode with a charger, said device being characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise analysis means of the charging current of said charger, (so that it is not necessary to modify the electronic circuits of the standard mobile telephone).
- 20 11. A device according to any one of the claims 7 or 8; the mobile telephone comprising a vibrator intended to signal calls to the user; said device being characterised in that the detection means (1) for the mobile telephone to detect autonomously the call from the calling station comprise receivers sensitive to the vibrations given out by said vibrator,

(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

12. A device according to any one of claims 7 or 8

30 characterised in that the detection means for the mobile telephone to detect autonomously the call from

the calling station comprise an independent electronic circuit picking up the call signals emitted by the calling station,

(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

- 13. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a ring intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the acoustic vibrations given out by the ring are detected,

(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

14. A device according to any one of claims 7 or 15 8; the mobile telephone comprising a ring intended to signal calls to the user; said device being characterised in that the detection means for the mobile telephone to detect autonomously the call from 20 the calling station comprise receivers, particularly microphones, sensitive to the acoustic vibrations given out by the ring,

(so that it is not necessary to modify the electronic circuits of the standard mobile telephone).

CLAIMS

- 1. A process for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument: said process including the stages:
- of autonomous detection (1) by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal,
- of triggering, by means of said detection signal, the emission of an acoustic signal (4) of power comparable to that of the ring of a domestic telephone instrument,
- so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.
 - 2. A process according to claim 1 characterised in that it includes additionally the stage
- of emitting the acoustic signal by means of an emitter supplied (5), directly or indirectly, with power by a domestic source, particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the household electricity,
 - so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source.

- 3. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- a disturbance of the electromagnetic environment of the mobile telephone is detected, so that it is not necessary to modify the electronic circuits of the standard mobile telephone.
- 4. A process according to any one of claims 1 or 2 such that in sleep mode the mobile telephone is combined with a charger, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
 - the variations in charging current of said charger are detected,
- 15 so that it is not necessary to modify the electronic circuits of the standard mobile telephone.
 - 5. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a vibrator intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
 - vibrations given out by said vibrator are detected (1),
- so that it is not necessary to modify the electronic circuits of the standard mobile telephone.
 - 6. A process according to any one of claims 1 or 2 characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the call emitted by the calling station is detected by means of an independent electronic circuit.

Modified

so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

- 7. A device for producing, when a standard portable mobile telephone is called by a calling station, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument; said device including:
- detection means (1) for the mobile telephone to detect autonomously, directly or indirectly, the call
 from the calling station and detection signal production means,
 - means for triggering (2, 3), by means of said detection signal, the emission by an acoustic emitter of an acoustic signal of power (4) comparable to that of the ring of a domestic telephone instrument,
 - so that the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.
- 8. A device according to claim 7 characterised in that said acoustic emitter is supplied, directly or indirectly, with power by a domestic source (5), particularly by a charger connected to the household electricity and/or a rechargeable battery by a charger connected to the household electricity,
 - so that the number of incoming calls giving rise to the production of a high power acoustic signal is not limited by the capacity of the power source.
- 9. A device according to any one of claims 7 or 8
 30 characterised in that the detection means for the mobile telephone to detect autonomously the call from

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the calling station comprise disturbance analysis means of the electromagnetic fields surrounding the mobile telephone,

so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

- 10. A device according to any one of claims 7 or 8; the mobile telephone being combined in sleep mode with a charger, said device being characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise analysis means of the charging current of said charger, so that it is not necessary to modify the electronic circuits of the standard mobile telephone.
- 11. A device according to any one of the claims 7

 or 8; the mobile telephone comprising a vibrator intended to signal calls to the user; said device being characterised in that the detection means (1) for the mobile telephone to detect autonomously the call from the calling station comprise receivers sensitive to the vibrations given out by said vibrator,
 - so that it is not necessary to modify the electronic circuits of the standard mobile telephone.
 - 12. A device according to any one of claims 7 or 8 characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise an independent electronic circuit picking up the call signals emitted by the calling station,
- so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

Modified

- 13. A process according to any one of claims 1 or 2 such that the mobile telephone comprises a ring intended to signal calls to the user, said process being characterised in that for the mobile telephone to detect autonomously the call from the calling station:
- the acoustic vibrations given out by the ring are detected,
- so that it is not necessary to modify the electronic circuits of the standard mobile telephone.
- 10 14. A device according to any one of claims 7 or 8; the mobile telephone comprising a ring intended to signal calls to the user; said device being characterised in that the detection means for the mobile telephone to detect autonomously the call from the calling station comprise receivers, particularly microphones, sensitive to the acoustic vibrations given out by the ring,
 - so that it is not necessary to modify the electronic circuits of the standard mobile telephone.

10

ABSTRACT

A PROCESS AND SYSTEM FOR PRODUCING, WHEN CALLING A

STANDARD PORTABLE MOBILE TELEPHONE, AN ACOUSTIC SIGNAL

OF POWER COMPARABLE TO THAT OF THE RING OF A DOMESTIC

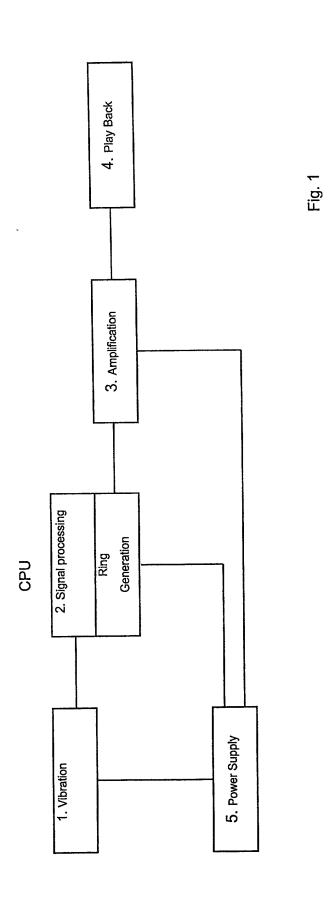
TELEPHONE INSTRUMENT.

The present invention concerns a process and a system for producing, when a standard portable mobile telephone is called, an acoustic signal of power comparable to that of the ring of a domestic telephone instrument.

The process includes the stages:

- of autonomous detection (1) by the mobile telephone, directly or indirectly, of the call from the calling station and of generation of a detection signal,
- of triggering (2,3), by means of said detection signal, the emission of an acoustic signal of power (4) comparable to that of the ring of a domestic telephone instrument.
- Thus, the user of the standard mobile telephone is alerted to the incoming call even if he/she happens to be some distance away from the standard mobile telephone.

Figure 1.



DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My resident, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "METHOD AND SYSTEM FOR PRODUCING WHEN A CALL IS RECEIVED ON A STANDARD PORTABLE TELEPHONE, A SOUND SIGNAL AS POWERFUL AS A DOMESTIC TELEPHONE SET RINGING SIGNAL", the specification of which

(X)	is attached hereto.	
()	was filed on	as application Serial No.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, 1.56(a).

Foreign Priority Applications

I hereby claim foreign priority benefits under Title 35, United States Code 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Priority Claimed

98/08550	FR	03 July 1998	Yes (X) No ()	
(Number)	(Country)	(Day/Month/Year Filed)		
00/100/10	777	40.4		
98/10242	<u>FR</u>	10 August 1998	Yes (X) No ()	
(Number)	(Country)	(Day/Month/Year Filed))	
99/00807	FR	26 January 1999	Yes (X) No ()	/
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(Number)

(Country)

(Day/Month/Year Filed)

U.S. Priority Applications

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

PCT/FR99/01587	01 July 1999	Pending
(Serial No.)	(Filing Date)	(Status-patented/pending/abandoned)

Power of Attorney

I hereby appoint the following attorneys and patent agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith: John E. Lynch, Reg. No. 20,940; Peter F. Felfe, Reg. No. 20,297; Norman D. Hanson, Reg. No. 30,946; John A. Bauer, Reg. No. 32,554; James Zubok, Reg. No. 38,671; James R. Crawford, Reg. No. 39,155, C. Andrew Im, Reg. No. 40,657; David Rubin, Reg. No. 40,314; and William C. Coppola, Reg. No. 41,686; my attorneys with full power of substitution and revocation. Address all telephone calls to C. Andrew Im (212) 318-3000. Address all correspondence to:

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

HAM

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